

# SCIENTIFIC RESEARCH IN THE UNITED STATES AND THE IMPACT IT HAS ON OUR ECONOMY

THE SPEAKER pro tempore (Mr. SIMPSON). Under a previous order of the House, the gentleman from Michigan (Mr. EHLERS) is recognized for 5 minutes.

Mr. EHLERS. Mr. Speaker, I appreciate the opportunity to rise and discuss the issue of scientific research in the United States and the impact that it has on our economy.

The reason I do this is because there currently is an underfunding of scientific research in the budget proposals we have before us and in the appropriations bills which we have passed. I would like to review why that is dangerous for our Nation and why we must increase our spending on scientific research.

Let me first back up a year or two. A previous speaker, Mr. Gingrich, had a keen interest in science and technology and asked the gentleman from Wisconsin, Mr. SENSENBRENNER, chairman of the Committee on Science, to give me the responsibility of reviewing science and technology policy in the United States Government and make recommendations for improvement.

After all, the previous study had been done by Vannevar Bush in 1945 and, although it was outstanding, it is clearly out of date. There has been some excellent science policy work done recently by individuals outside of the government, but our government had not done anything official in that direction.

As a result of our work, after holding a considerable number of hearings, working hand-in-glove with the Speaker and with the gentleman from Wisconsin (Mr. SENSENBRENNER), we were able to produce a new science policy report. It has just come out in paperback, and it has been very well received by the scientific community. It makes a number of arguments for the importance of scientific research in our Nation and explains what we should do in the way of Federal funding. I believe the recommendations are well founded and should be followed.

I would also like to briefly display the number of letters I received just in the past few weeks from leaders of scientific associations protesting the lack of funding in this year's budget. I have a letter, for example, from Jerry Friedman, President of the American Physical Society; from the American Association for the Advancement of Science; American Association of Engineering Societies; American Astronomical Society; American Ceramic Society; American Chemical Society; American Electronics Associations, which represents one of the bigger industries in our Nation; American Geological Institute; American Institute of Biological Sciences, the Chemical Engineers, the Mathematical Society, et cetera, all expressing the great concern in the scientific world about this particular issue.

Similarly, there was an op-ed piece in the Washington Post just a week ago by Allan Bromley, outstanding physicist and former presidential science advisor, who has been a leader in the scientific community for many years. The title of his article is No Science and No Surplus, and I would like to at this point enter that into the RECORD.

[From the Washington Post, August 26, 1999]

## NO SCIENCE, NO SURPLUS

(By D. Allan Bromley)

America is on a roll. We're balancing the federal budget, reforming welfare and making retirement secure. Sound like a breakthrough in fiscal management? Not exactly. Our awesome economic success can be traced directly to our past investments in science. The problem is, this year's federal budget for science is a disaster, and it compromises our nation's economic and social progress.

Here are the latest budget numbers: NASA science is slashed by \$678 million; science at the Department of Energy is cut by \$116 million; and the National Science Foundation ends up with \$275 million less than the president requested. Clearly, Congress has lost sight of the critical role science plays in America.

Federal investments in science pay off—they produce cutting-edge ideas and a highly skilled work force. The ideas and personnel then feed into high-tech industries to drive the U.S. economy. It's a straightforward relationship: Industry is attentive to immediate market pressures; the federal government makes the venturesome investments in university-based research that ensures long-term competitiveness. So far, it's been a powerful tandem.

Thirty years ago, the laser and fiber optic cable were born from federal investments in university research. Over time, those two discoveries formed the backbone of a multi-billion-dollar telecommunications industry.

The fusion of university research and industrial development now generates about 5,000 new jobs and contributes a quarter-billion dollars in taxes to the federal coffers every day. It accounts for 70 percent of our economic growth. The result is undeniable. The fusion is primarily responsible for our booming economy and our growing federal surplus. So the consequences of a budget cut to science are equally undeniable: no science, no surplus.

The benefits of the science investment go deeper than just the surplus. Three years ago this month, welfare underwent dramatic reform. No one knew what the fallout from that would be. But the high-tech economy eased the burden. Unemployment was dropping to a 25-year low, and jobs were being created at a record pace. As it turned out, half of those jobs were generated by the high-tech sector.

The legislative challenge before us is patching up Social Security. Again, we'll rely on the science and technology juggernaut. Whether the solution lies in stimulating private investment or in steady federal surpluses, the proposals all rely on a familiar friend—the strength of our nation's booming economy. And while Congress dithers, the public already is taking steps of its own.

Americans hold more than \$5 trillion in communications and technology stocks. Our mutual funds, our 401K plans and IRAs are stuffed full of high-tech investments. The retirement security of Americans now depends upon the steady flow of innovations from technology companies. In turn, those companies rely on the steady flow of discoveries and trained work force generated by the scientific community. No science, no savings.

Scientific research at our universities and national labs is now a foundation of the economy and thereby vital to the success of social legislation. But rather than reinforcing the foundation, Congress is eroding it. That action couldn't come at a worse time.

America's science infrastructure is in decay—aged science buildings on our campuses, dated laboratory equipment, antiquated computers. During the Bush administration, the Office of Science and Technology Policy estimated the cost of rebuilding our science infrastructure at \$100 billion. The Clinton administration has done little to address the problem. The budget Congress is proposing guarantees continued decay.

Congress must significantly increase science funding. Senators recognized the need last week when, with the support of Sens. Trent Lott and Tom Daschle, they passed the Federal Research Investment Act, which calls for doubling the federal investment in science by the year 2010. But appropriators haven't followed through. It's not too late—budgets won't be settled until October.

For the sake of the country, I hope Congress will recognize the significant role science plays in society. Without science, there won't be a surplus.

Mr. EHLERS. The key point is this: when we analyze what is causing our economic boom of the past few years, the first major cause is monetary policy, which has largely been headed by Alan Greenspan; next is tax and regulatory policy, where the Republicans in the Congress have made tremendous improvements; and the final and very vital cause is scientific research. If we analyze the economic development taking place today we will find that over half of all economic development is directly related to scientific research, whether it is the Internet, whether it is medical research, any of the other research projects going on.

Dr. Bromley's thesis is very simple. He says: no science, no surplus. Why? Because the economic boom we are enjoying now, which has resulted in the first surpluses in the Federal Government since 1969, is to a large extent caused by the scientific research that has been done in the last 2 to 4 decades. If we do not continue to do that research, we are doing a grave disservice to our children and grandchildren, because we are condemning them to a United States which will not have as much economic growth and which will not have the resources and the surplus which will enable them to enjoy a good economy as we enjoy it today.

Mr. Speaker, I advocate very strongly that we review the appropriations bills that have passed the House and are before the Senate, and that we make every effort to increase the funding for scientific research.

As it stands now, NASA science is slashed by \$678 million; science of the Department of Energy is cut by \$116 million; and the National Science Foundation ends up with \$275 million less than requested.

I think it extremely important that we review these bills and that we increase funding for scientific research so that we may continue to enjoy not

only the results of the research, but also the economic benefits that will arise from the fruits of that research.

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Maryland (Mr. CUMMINGS) is recognized for 5 minutes.

(Mr. CUMMINGS addressed the House. His remarks will appear hereafter in the Extensions of Remarks.)

#### CAMPAIGN INTEGRITY ACT OF 1999

The SPEAKER pro tempore. Under the Speaker's announced policy of January 6, 1999, the gentleman from Arkansas (Mr. HUTCHINSON) is recognized for 60 minutes as the designee of the majority leader.

Mr. HUTCHINSON. Mr. Speaker, I am pleased this evening to take this opportunity to address a very important subject. Tomorrow this House will once again consider legislation that would improve our campaign finance laws.

I know that my colleagues will say well, we have been here before. In fact, we have been here before many, many times, because this Congress and previous Congresses have considered year after year various forms of campaign finance legislation and none of those have ever passed both Houses, signed by the President and actually become law. So there is a growing frustration and cynicism among the American public.

I believe that this is a cause still worth fighting for, that there is a consensus still yet to be maintained and to be gained and I hope that we can do that this Congress; whether it is this vote tomorrow or whether it is later on.

The bill that I am proposing is the Campaign Integrity Act of 1999, which we have worked hard to draft in a fair and bipartisan manner and will address the greatest abuses in our campaign system. I am delighted to have two of my colleagues joining me in this discussion tonight, the gentleman from Montana (Mr. HILL) and the gentleman from Texas (Mr. BRADY). I want to hear what their views are on this and why this is important for us to address this subject of campaign finance reform, and particularly this bill that we have all cosponsored, the Campaign Integrity Act of 1999.

So I want to express my appreciation to the gentleman from Montana (Mr. HILL), who has done such a tremendous job in showing leadership on an issue that I think is vital to our political process. I know he has been active as a State party chairman in Montana. He understands the political process. He understands the role of parties and candidates, and I am very grateful for his support, and I want to yield to him so he can talk about why this is needed.

Mr. HILL of Montana. Mr. Speaker, will the gentleman yield?

Mr. HUTCHINSON. I yield to the gentleman from Montana.

Mr. HILL of Montana. Mr. Speaker, I thank the gentleman from Arkansas (Mr. HUTCHINSON) for yielding, and let me compliment the gentleman from Arkansas (Mr. HUTCHINSON) for his untiring effort at trying to help reform the campaign finance laws of this country.

We started this process as freshmen in the last Congress, holding hearings, drafting legislation, bringing together Democrats and Republicans in a bipartisan bill, and it was his leadership that helped us accomplish that.

It seems to me that we need to accomplish three things when we are going to reform the campaign finance laws. At least from my judgment, there are some things that are broken in the current system and we need to accomplish some changes.

One of those is that we need to have more competitive campaigns. Over 90 percent of the Members of this House who stand for reelection are reelected election after election after election. Even in the great revolutionary election of the 104th Congress in 1994, nearly 90 percent of the Members who stood for reelection were reelected.

One of the reasons for that is that it is difficult for challengers to raise the resources necessary to have a viable election. In fact, I find it kind of interesting that there are some who helped sponsor legislation similar to this in the last Congress, when they came as freshmen Members who this was their first time in Congress and they had maybe run a challenger's race who are now incumbents, some might say are entrenched incumbents, who do not support campaign finance reform that would allow us to have competitive elections, but I appreciate the gentleman's untiring effort.

The other thing we need to do is deal with the issue of soft money. As the gentleman knows, soft money are large corporate contributions, labor union contributions. It has been the tradition of this country for almost all of this century that large organizations, corporations and labor unions, should not be able to contribute unlimited sums of money to the political process because the view is that they would overwhelm the process. This bill that we are advocating would put restrictions on soft money to the political parties.

The other thing that we need to accomplish when we reform finance laws is to maintain our commitment to the First Amendment. Some people would advocate changes in the campaign finance laws that would have the effect of stifling the competitive thought that is out there; the outside groups and others who want to express themselves about what we do here. So there are some who in closing the soft money loophole want to close the loophole of the First Amendment, the right for people to express their views, and we cannot allow that to happen, too.

So what this bill does is it says to the political parties, the political parties cannot accept soft money but allows

independent groups to be able to continue to express their views about what we do and how we go about doing it and in the process not chilling free speech.

So those three things, this bill does. It protects our First Amendment freedoms, reinforces them. It eliminates the potential problems that soft money and the corrupting influence that that might have on our political parties but it also endeavors to make campaigns competitive again, which is so important to this country.

So I just want to compliment the gentleman from Arkansas (Mr. HUTCHINSON) for his hard work. This is a good bill. Our colleagues are going to have an opportunity to vote on this this week. I think this is the right alternative to reform our system, and I know that the gentleman has been a strong advocate for that, and I thank him for yielding to me this evening.

Mr. HUTCHINSON. Well, I thank the gentleman for his remarks. He is exactly on point, that we do not want to harm the First Amendment and the freedoms we all enjoy in the political process in order to just do something and make a change in the law.

So I believe that we can have a balance, that we can actually stop the flow of soft money into our national political parties; we can stop the greatest abuse; we can still have a significant and critical role that the parties play but still not infringe upon those groups that are out there expressing themselves in election.

Imagine how counterproductive it would be if we burdened these outside groups and said, you cannot participate in the political or we are going to put so many regulations on you that your participation will be really rendered meaningless.

So I do not think that is the direction we want to go. This bill is very balanced. It addresses the abuse in our system, but like the gentleman said, it makes sure that we protect our First Amendment freedoms.

So I am delighted also to have my good friend, the gentleman from Texas (Mr. BRADY), here, who has been so outspoken in favor of reform and particularly supportive of the Campaign Integrity Act. So I would just like to yield to him for his comments on this bill.

Mr. BRADY of Texas. Mr. Speaker, will the gentleman yield?

Mr. HUTCHINSON. I yield to the gentleman from Texas.

Mr. BRADY of Texas. Mr. Speaker, first I thank the gentleman from Arkansas (Mr. HUTCHINSON) for yielding, but also for his leadership on this issue.

As freshmen together 2 years ago, the gentleman played the leadership role in working together, Republicans and Democrats, over a very thoughtful 5-month period, meeting with experts on constitutional law, citizens who felt the way we finance campaigns ought to be changed, people who thought the status quo was fine, listening to all opinions and approaches before, I